## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-002764

Address: 333 Burma Road **Date Inspected:** 02-Jun-2008

City: Oakland, CA 94607

OSM Arrival Time: 1400 **Project Name:** SAS Superstructure **OSM Departure Time:** 2300 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Chen Chih-Ming / An Qingxiang CWI Present: Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No

Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** OBG side and bottom panels and tower skin p

# **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA performed 10% verification Magnetic particle Testing (MT) on the following side to bottom panel joints: SEG-16A-008A and SEG-16A-007A. Both welds appeared to be compliant with AWS D1.5 2002 and the contract documents.

QA observed ZPMC personnel installing floor beam in the OBG fixture section FL2-1 and FL2-2 to FL1 south at PP-021 segment 3A east (SEG 14).

QA observed ZPMC qualified welding personnel perform SAW on SP-305 to SP-332 joint# SEG-024A-001 following the guide lines of WPS# WPS-B-T-2221-B-L2c-S-1. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 29.5 Amps: 520 Travel speed: 530mm/min

QA observed ZPMC qualified welding personnel perform SMAW tack welding on SP-747 to SP-509 joint# SEG-021A-008 following the guide lines of WPS# WPS-B-P-2211-B-U2-FCM. QC monitored the process continuously until completion. The welding parameters as measured with Quality Controls calibrated instruments

# WELDING INSPECTION REPORT

(Continued Page 2 of 2)

appeared to be in conformance with the posted WPS's and were as follows:

Volts: 22 Amps: 170 Travel speed: 104mm/min

Other general observations include ZPMC personnel grinding side and bottom panels and weld bevel prep.

New Tower Bay 2

General observations in the New Tower bays include weld bevel preparation, flame straightening, CNC parts cutting, hole drilling and grinding.

No welding was be performed in this bay during the time QA was present.





#### **Summary of Conversations:**

Only general conversations were held between QA and QC concerning this project.

# **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

| Inspected By: | Hall,Steven    | Quality Assurance Inspector |
|---------------|----------------|-----------------------------|
| Reviewed By:  | Cuellar,Robert | QA Reviewer                 |